

EXHIBIT 19

From: Brown, Timothy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=A1BCD95116E84D6692DD89F9D55C5B7A-BROWN, TIMO]
Sent: 10/29/2018 9:14:30 PM
To: Johnson, Rani [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0ee57945f15e47b3abaa99a59170ad3f-Johnson, Ra]
Subject: Solarwinds state of security operations [Autosaved].pptx
Attachments: Solarwinds state of security operations [Autosaved].pptx

This powerpoint contains the current state of security slides updated for October. A review of what we asked for last August and a red yellow green status showing how we have done on our initiatives. A 2019 plan and ask for security. We can review in tomorrow but it's a reasonable place to start.

Tim

INFORMATION SECURITY -

Risk review October 2018

THANK YOU

Current state Sept 2018

A Proactive Security Model – Original plan and request from August 2017

**Risk Mitigation Plan for IT Security Operations**

- Lock down our critical assets that could cause a major event
 - External PEN test of our environment – Provide a baseline
 - Lock down administrative access and improve identity management process and procedures
 - Implement Web Application FW to protect our critical web properties
- Improve Cyber Hygiene so we are not a target of opportunity
 - Improve coverage for endpoint security, encryption, event management
 - Improve system scanning coverage, monitoring and patching
 - Implement DLP on the endpoints
 - Implement security training for all employee's
- Focus on security areas that provide the biggest impact
 - Coordinate IT Security Ops activities across all organizations. Standardize policies, share best practices and **Redacted**
 - Reduce the number of security incidents by implementing industry standard best practices.
 - Accelerate cross company adoption of all security controls

Risk Mitigation Plan for Product Security/Dev Ops

- Establish a global, cross-pillar Security Champions – Product team members with 30% of their time dedicated to security. Dotted line report to VP Security Architecture
- Internal Training and Outreach
- Coordinate internal product security testing and application vulnerability scanning
- Internal bug bounty program
- Product Management and Engineering management coordination
- Measurement of risk and effectiveness of program per product line
- Invest in Commercial code scanning tool
- Invest in developer security training

Overall Budget Request:

Security Program Manager	\$180 IT/Dev Ops
Security Architect	\$180 IT/Dev Ops
Application Firewall	\$40K per year
Internal/External PEN test	\$50K
Company wide Security Training	\$30K
Secure development training	\$30K
Commercial application code scanner	\$70K
Total	\$580K + 30%
time of 4 Security Champions	

Risk of Non-Investment

- Current state of security leaves us in a very vulnerable state for our critical assets. A compromise of these assets would damage our reputation and financially.
- Lack of cyber hygiene leaves us open to being a target of opportunity and a compromise will create downtime and lost revenue
- We have had 22 reported security incidents this year. Reactive responses costs significantly more than being proactive.
- We have lost a renewal of DPA for Accenture (192K) due to utilizing free code scanning tools that did not find all vulnerabilities.
- Without training our employees will continue to be one of our biggest risks
- Appropriate security policies, procedures, training, PEN testing are required by our commercial customers and asked for in qualifying questionnaires. Without appropriate answers we will lose business

A Proactive Security Model – Updated October 2018 with status



Risk Mitigation Plan for IT Security Operations – Aug 2017 – Updates from Oct 2018

Lock down our critical assets that could cause a major event

- External PEN test of our environment
 - PEN tests complete for MSP products, Cloud products, not Orion products (But internal team stalled)
- Lock down administrative access and improve identity management process and procedures
 - Evaluation of access control complete. Increased use in Secret server. Move to O365 provides additional capabilities. Many independent user stores still in use and not well controlled
- Implement Web Application FW to protect our critical web properties
 - WAF implemented for all Marketing properties but not our applications. Investigating use of AWS WAF for SaaS products

Improve Cyber Hygiene so we are not a target of opportunity

- Improve coverage for endpoint security, encryption, event management
 - Endpoint security at 90+%, Encryption growing. Event management will improve with move to Threat Monitor
- Improve system scanning coverage, monitoring and patching
 - Scanning and patching of core IT servers in place. MSP is now scanning with Rapid7. Still lack visibility and reporting
- Implement DLP on the endpoints
 - Complete 90+% deployed
- Implement security training for all employee's
 - Basic security training included in on-boarding. Need to improve overall training including developer training

Risk Mitigation Plan for IT Security Operations – Aug 2017 – Updates from Oct 2018

Focus on security areas that provide the biggest impact

- Coordinate IT Security Ops activities across all organizations. Standardize policies, share best practices and coordinate the measurement of risk for the organization
 - Establishment of Security focused team in Dev Ops for MSP will extend to Core Dev Ops. Still working towards standardization of NIST measurement. Best practices being shared
- Redacted
- Reduce the number of security incidents by implementing industry standard best practices.
 - Incidents have been on the rise and not being reduced. The teams are getting practice and have streamlined the process
- Accelerate cross company adoption of all security controls

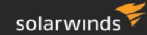
Risk Mitigation Plan for Product Security/Dev Ops

Establish a global, cross-pillar Security Champions – Product team members with 30% of their time dedicated to security. Dotted line report to VP Security Architecture

- Internal Training and Outreach
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- Internal bug bounty program
- Product Management and Engineering management coordination
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- Invest in Commercial code scanning tool
- Invest in developer security training

10

A Proactive Security Model – Updated October 2018 with status

**Risk of Non-Investment**

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•Lack of cyber hygiene leaves us open to being a target of opportunity and a compromise will create downtime and lost revenue

•We have had 22 reported security incidents this year. Reactive responses costs significantly more than being proactive.

•We have lost a renewal of DPA for Accenture (192K) due to utilizing free code scanning tools that did not find all vulnerabilities.

•Without training our employees will continue to be one of our biggest risks

•Appropriate security policies, procedures, training, PEN testing are required by our commercial customers and asked for in qualifying questionnaires. Without appropriate answers we will lose business

Overall Budget Request:

Security Program Manager	\$180 IT/Dev Ops
Security Architect	\$180 IT/Dev Ops
Application Firewall	\$40K per year (Webdev team)
Internal/External PEN test	\$50K = \$25K Spent (25K Cloud PEN test, MSP Security team (2) established, Core Security team established)
Company wide Security Training	\$30K
Secure development training	\$30K
Commercial application code scanner	\$70K (Checkmarx acquired)
Total	\$580K + 30%
time of 4 Security Champions	